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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SOBUTKA, PHILIP

ART UNIT PAPER NUMBER

2684

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,927

Applicant(s)

HEINZMANN, FRED JUDSON

Examiner

Philip J. Sobutka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 and 39-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 29-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8-6-07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 29-31,34,36,37 are rejected under 35 U.S.C. 102(e) as being anticipated by Barabash (US 6.606,059).

Consider claim 29. Barabash teaches an antenna for a wireless local loop subscriber station (Barabash see especially col 1, lines 12-18, col 9, lines 15-20) comprising: a connecting means for attaching said antenna to a radio of said subscriber station (Barabash figs 4A, 5, item 134, col 6, lines 26-27 and figs 7A,B, item 234, col 8, lines 41-45); a plurality of directional antennas each defining a different sector of coverage for said antenna, each of said directional antennas being switch able in relation to each other such that said antenna transceives a radio link in said direction (Barabash figs 3A-C, col 4, lines 15-30, and fig 5, col 7, lines 19-65).

As to claim 30, Barabash teaches that the steerable antenna includes four directional antennas at an angle of ninety degrees to the other, each of the directional antennas having a coupled patch configuration (Barabash fig 7A,B, col 8, lines 21-46, figs 4A-C, col 5, lines 35-55).

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As to claim 31, Barabash teaches that the antenna's coupled patch configuration includes a plurality of sub-elements (Barabash fig 9, col 9, lines 30-35).

As to claim 34, Barabash teaches the antenna wherein the subscriber station includes at least one steerable antenna able to be oriented in both horizontal and vertical planes (Barabash see especially fig 14, col 11, lines 30-43).

As to claim 36, and 37, Barabash teaches the antenna wherein said subscriber service includes voice and/or data service and said subscriber terminal is a voice and/or data terminal (Barabash see especially col 3, lines 15-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 33,38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barabash in view of Reudink et al (US 2004/0235527).

Consider claim 33, Barabash teaches everything claimed as shown above except wherein one of said directional antennas is selectively used for an uplink portion of said link and another of said directional antennas is selectively used for a downlink portion of said link, each of said directional antennas being selected according to a desired transmission-quality of said uplink and a desired reception-quality of said downlink.

Reudink teaches a system in which one antenna is selected from an array for uplink and

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another for downlink based on signal quality (Reudink figs 1, 5, para. 50). Reudink teaches this method allows for high data rate while allowing efficient reuse of frequencies (Reudink para. 48). It would have been obvious to one of ordinary skill in the art to modify Barabash to select one antenna for uplink and another for downlink as taught by Reudink in order to allow for high data rate while allowing efficient reuse of frequencies.

As to claim 38, Barabash teaches everything claimed as shown above except for the wireless link being based on CDMA. Reudink teaches that use of CDMA allows for code sharing of a single resource among multiple users (Reudink para. 52). It would have been obvious to one of ordinary skill in the art to modify Barabash to use CDMA as taught by Reudink in order to allow for code sharing of a single resource among multiple users.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barabash in view of Westfall et al (US 6,014,114).

Consider claim 35. Barabash teaches everything claimed except for each of the sub-elements including a substantially octagonal outer-patch and a substantially octagonal inner-patch, said outer patch serving as a parasitic element to its said respective inner patch. Westfall teaches a patch antenna which includes a substantially octagonal outer-patch and a substantially octagonal inner-patch, said outer patch serving as a parasitic element to its said respective inner patch (Westfall col 3, lines 33-41). Westfall teaches that this arrangement allows for an antenna structure that reduces multi-path while being very lightweight. It would have been obvious to one of

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ordinary skill in the art to modify Barabash's antenna to use the structure of Westfall in order to provide an antenna that reduces multi-path while being very lightweight, which would be advantageous in the nomadic arrangement of Barabash.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 32 recites the limitation "said desired transception-quality" in line 1. There is insufficient antecedent basis for this limitation in the claim.

9. It is further noted that the word "transception" does not appear in the dictionary. It is suggested that the word be replaced by "signal".

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 703-305-4825. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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NAY MAUNG
SUPERVISORY PATENT EXAMINER

January 14, 2005